FAP 818

SAFETY, HEALTH, AND ENVIRONMENTAL MANAGEMENT PROTOCOL
FOR FIELD ACTIVTIES
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina

PURPOSE

To ensure adequate review of safety issues and equipment to identify potential hazards and to verify establishment of contact with facility safety representative(s).

This protocol assumes that EPA personnel and their representatives will perform their facility visit escorted by a facility representative. This representative will be cognizant of the facility safety and emergency procedures, will provide to the EPA staff and representatives information on the essential facility safety and emergency procedures, and will remain with the EPA team while on site.

PART I. PROJECT INFORMATION

Project Title: Characterization of Air Emissions from Open Burning at Radford Army Ammunition Plant

Dates/Duration of Field Activity: September 8-19, 2015

Principal Investigator (PI): Dr. Brian Gullett

Laboratory, Division, Branch:
____NRMRL/APPCD/IODD_____

Phone: Office: ___919-541-1534_____ Site (or Cell): _____919-699-3074_____

Field Site Name/Address: Radford Army Ammunition Plant, Radford, VA

Site type: Military ammunition manufacturing facility
(i.e., manufacturing plant, roadside, woods, contamination cleanup site, lake, etc.)

OMIS Task # (if applicable): _____

OMIS Title (if applicable): _____

National Environmental Policy Act (NEPA) Requirements

Will the project encounter / impact endangered species (plants / animals)? ____ Yes _x___ No

Will the project encounter / impact any historic sites (burial grounds, monuments, etc.)? ____ Yes __x__ No

Will the project involve drilling, soil samples, or any soil impact? ____ Yes _x___ No

Will the project involve any potential uncontrolled impacts to water / air / and/or discharges approaching regulatory limits?

____ Yes __x__ No

NOTE: If YES to any of the above, please contact your Division NEPA Officer to conduct a review prior to approval.

PI Signature: _____ Date: _____
(Principal Investigator must be an EPA employee)

PI Signature: _____ Date: _____
(Principal Investigator must be an EPA employee)

APPROVALS

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Branch Chief: _____ Date: _____

Branch Chief: _____NA_____ Date: _____

(Obtain signatures above prior to sending to the ORD SHEM Office (MD-D343-02 or archer.john@epa.gov)

ORD SHEM Office: _____ _____09/02/2015_____ Date: _____

PART II. PROJECT INFORMATION

A. Detailed Study Description (Research or Monitoring Protocol should be attached if applicable):

B.

The Radford Army Ammunition Plant (RFAAP) conducts on-site disposal of Mark 90 rocket motors via open burn pans. Data on potential combustion emissions and emission factors are available only from small laboratory and pilot scale simulations and their relevance to the RFAAP's scenario has been questioned. To resolve this issue, the RFAAP has asked the U.S. EPA's Office of Research and Development (ORD) to conduct sampling and quantification of emissions.

Draft QAPP attached.

B. Personnel (List EPA personnel only)

NOTE: Each signatory certifies the statement below:
"I have reviewed this Safety Health and Environmental Management Protocol for Field Activities and agree to comply with all procedures and protective measures outlined in the protocol."

Name	Signature	*Medical Monitoring	*Field Activity Training	*First Aid	*AED/CPR	*HAZWOPER
Brian Gullett		X	X		X	X
Bill Mitchell		X	X	X		
Xiaochi Zhou (student Contractor)			x			
Johanna Aurell (UDRI)			X			X

*Indicate if personnel are: 1) Participants in the Occupational Medical Surveillance (Medical Monitoring) Program and 2) Up-to-date in Field Activity Safety Training and/or any other training.
If no, provide explanation in Comments section below.

Comments.

C. Location(s) where work will be conducted (include site name and address)

Site Name: Radford Army Ammunition Depot, 4050 Peppers Ferry Rd NW, Radford, VA 24141

Is this site a remote location __x___ or an urban setting _____?

Will the project require overnight camping in the field? Yes _____ No _____

If site is in a remote location, include a map and global positioning system or longitude/latitude coordinates.

Is this site domestic _____ or international _____?

If site is international, complete Part 5 of this form.

Identify the type(s) of environments the study will be conducted in:

_____ Mobile Laboratory

__X___ Non-EPA Laboratory

_____ Terrestrial Ecology

_____ Aquatic Ecology

_____ Industrial Site

_____ Other _____

Will research equipment be decontaminated in the field? __X___ Yes _____ No
If yes, describe decontamination procedures and waste generated.
Equipment wipes. Little other contamination expected.

D. Contact Personnel for Field Site

Contact Name: Mr. Jay Stewart, 540-639-7785, 540-200-9536 cell

E. Transportation

Will a Government vehicle to be taken? __2___ Yes _____ No

If yes, has the most suitable and fuel efficient vehicle for the task been chosen? ___x__ Yes _____ No
Please describe. Two vans will take four people and our equipment and luggage.

If yes, is a first aid kit available? ___x__ Yes _____ No

If yes, is a fire extinguisher available? ___x__ Yes _____ No

If yes, please list other supplies that will be available.

F. Copies of Forms (Motor Vehicle Accident, Injury/Illness) Available? _x____ Yes _____ No

PART III: HAZARD INFORMATION

A. Potential Hazards Encountered during Field Study (List various tasks. Repeat if multiple hazards or controls)

Task	Hazard Category	Hazard	Controls	PPE
Sampling	**Physical**	**Sunburn**		**Hats, sunscreen**
Ash collection	**Chemical**	**Inhalation**	**Minimal agitation**	**Mas with pink cartridge**
Sampling	**Physical**	**Noise (up to 75 dB)**	**Distance**	**Ear plugs**

*When respirator is checked, personnel using respirators must have been properly trained and fitted for the respirator within the past twelve months. Individuals using a respirator must be enrolled in the Respiratory Protection Program to remain eligible to wear respiratory protection equipment of any kind.

1. Identify any locations on the site that EPA personnel are restricted from entering. (Note: Employees are not authorized to enter confined spaces.)

Burn pan area during ignition. Site is controlled by Radford personnel.

2. Identify any pre-field visit vaccinations that are necessary.

_____ Tetanus

_____ Hepatitis A (wastewater)

_____ Hepatitis B (blood, body fluids)

_____ Other

___x__ None Required

3. Describe the level of physical exertion required:

_____ Low (Office work)

__x___ Moderate (Frequent walking)

_____ High (Frequent climbing, lifting)

B. Toxicity of Materials to be Used

1. Will any chemical materials be used that are considered hazardous agents by the ORD SHEM Office?

A hazardous agent, as defined by the ORD SHEM Office, a hazardous agent exhibits one or more of these characteristics:

- Has an LD50 (oral, rat) < 50 mg/kg body weight - Has an inhalation LC50 toxicity (rat) < 2mg/liter or < 200 ppm - Has a dermal LD50 toxicity (rabbit) < 200 mg/kg - Has an occupational exposure limit (OSHA, NIOSH or ACGIH) ≤ 1 ppm - Causes teratogenic or mutagenic effects (in humans or animals) - Is an infectious biological agent (as defined by CDC and/or NIH)	- Is an explosive or violently reactive agent (shock sensitive, peroxide forming, and/or incompatible with moisture/air) - Is a sensitizing agent - Nanoparticle research involving the use or manufacture of particles (Bucky balls, nano tubes, quantum dots, etc.) that is not contained in solution and/or with the possibility of airborne exposure. - Is an agent whose toxicological characteristics are unknown, but it is suspected of meeting one of the above criteria.

*EXCEPTION: Standards ordered from vendors in sealed vials or ampoules that are used directly in laboratory instrumentation are exempt even if they meet the above criteria.

_____ Yes _x____ No If yes, list in the table below:

C. Hazardous Agent(s):

Provide the following information for any hazardous agent that will be taken into the field by EPA personnel.

Chemical Name	CAS No.	Physical Form	Quantity Taken in Field	Condition / Method of Storage and Transport	DOT Labeling Requirements (Contact ORD SHEM Office for assistance at 1-2613)

***Attach a copy of Material Safety Data Sheet (MSDS) for each chemical listed above, or a copy of information found in NIOSH Registry of Toxic Effects of Chemical Substances**

D. Hazardous Waste Disposal

(Fill out the following information only if you are taking materials into the field and anticipate generating waste materials that must be returned to an EPA facility.)

Type of Waste Generated	Waste Volume	Time Period (e.g., weekly solvent waste)	Any unused stock? (yes or no)	If unused stock, will it be kept on

				site or disposed of?
No hazardous waste being generated.				

PART IV. EMERGENCY PROCEDURES

This information must be coordinated with representatives from the field site. This refers to the emergency procedures dictated by the site personnel.

A. In the event of an accident or chemical/biological spill:

1. Describe procedures in event of personal exposure (inhalation, ingestion, inoculation, asphyxiates, flammables, corrosives, etc.):

EMS and Fire Dept. on site. 540-639-7323. All personnel will program into their mobile phones.

2. Describe plans for containment to prevent spread of the agent from the immediate area, decontamination procedures and monitoring methods to assure decontamination.

NA

3. Describe the procedures for emergency evacuation of the facility.

To be briefed prior to work initiation; also daily Safety Briefing.

B. In the event of a medical emergency:

1. Emergency phone number (is 911 available or does facility have its own medical emergency number)?

EMS and Fire Dept. on site. 540-639-7323. All personnel will program into their mobile phones.

2. Is response by EMS available? ___ Yes _____ No

3. Include the hospital name, address, phone number **and** location relative to the site **if EMS crew will not be available** to provide emergency transportation.

Hospital: New River Valley Medical Center, 2900 Lamb Circle, Christiansburg, VA 24073 (540-731-2000) Medical Center

*Please attach (copy and paste) map or directions for first response hospital closest to site:

1. Is first response hospital equipped to handle:
   - ___ Burns?
   - ___ Chemical splashes (skin, eye, respiratory)?
   - ___ Chemical burns?
   - ___ Severe Trauma?
   - ___ Insect stings, bites, etc.

If the answer to any of the above is no, designate an alternate facility that can handle these types of injuries.
Hospital: _____
Address: _____
Phone #: _____